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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,029	01/04/2002	John M. Harriz	TC04-103US	2336

7590 01/07/2004
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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 01/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,029

Applicant(s)

HARRIZ, JOHN M.

Examiner

Frederick J. Parker

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 14-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

ETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-13, drawn to coating method, classified in class 427, subclass 180.
 - II. Claims 14-15, drawn to coating apparatus, classified in class 118, subclass 308.
 - III. Claims 16-18, drawn to superabsorbent article, classified in class 604, subclass 365.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus can be used for another and materially different process such as applying fillers, binders, antimicrobial, fire retardant, deodorant, or other particles to a non-woven web.
3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the article could be made by another and materially different process such as mixing fibers, particles, and binder simultaneously during laying or forming of the core.
4. Inventions II and III are related as apparatus and product made. The inventions in this relationship are distinct if either or both of the following can be shown: (1) that the apparatus as

claimed is not an obvious apparatus for making the product and the apparatus can be used for making a different product or (2) that the product as claimed can be made by another and materially different apparatus (MPEP § 806.05(g)). In this case the article can be made by another and materially different apparatus such as a conveyor having a suction means beneath contacting a second major surface and applying by flooding a dispersion of super absorbent particles to an opposing first major surface so the particles are pulled by suction into the core.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Kevin Casey on 10/29/03 a provisional election was made without traverse to prosecute the invention of group I, claims 1-13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 14-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1, line 4, "surface" lacks antecedent basis and it is further unclear which of the numerous core surfaces is intended.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1,4 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaiser et al US 5017324.

Kaiser et al teaches making non-woven pads (cores) comprising fibers and absorbent particles for moisture-absorbent hygienic products in which a nozzle 52 blows a high velocity stream of compressed air entrained with highly moisture absorbent (same as "super absorbent") particles, the velocity controlling the penetration of the particles into the non-woven mass and intermixing the fibers and particles across the desired thickness. The particles are necessarily immobilized or they would be unable to maintain the required concentration across the thickness. See col. 2, 45-59; col. 4, 44-50; col. 14, 13-33).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 2,3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al.

Kaiser et al is cited for the same reasons previously discussed, which are incorporated herein. While specific pad/ core thickness is not disclosed, Kaiser clearly teaches the absorbent pads useful for a wide range of hygienic products including diapers, sanitary napkins, incontinence pads, etc, with each having its own property requirements and absorbance needs. Therefore, it is the Examiner's position that it would have been within the purview of one of ordinary skill to have formed pads of the non-woven fibers to a thickness/ comfort/ softness and degree of absorbency as necessitated by the end-use, that thickness being determined by routine experimentation. It would have been obvious to one of ordinary skill in the art at the time the invention was made to carry out the method of Kaiser et al on a non-woven pad of a predetermined thickness to provide the degree of absorbency and user comfort as necessitated by the end-use application.

14. Claims 5,6,7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al in view of Hansen US 6071549.

Kaiser et al is cited for the same reasons previously discussed, which are incorporated herein. Use of an adhesive to immobilize the absorbent particles is not taught.

Hansen teaches forming composite, absorbent non-woven fiber-based cores for articles such as diapers, sanitary napkins, etc (col. 10, 20-32). A binder formulation is applied to the fiber core by spraying, immersion, etc, at the location, or downstream of the location, of where the particles are applied, the binder being capable of interacting and binding with the applied absorbent (super absorbent or other) particles (col. 9, 25-53). Liquid or solid binders may be used, and the fixing of the particles by the binder is activated by heat or other means (col. 17, 11-5). While heating of the compressed air stream which deposits the particles to also activate the binder, per claim 7, is not taught, since heated air streams are conventionally used for heating/ drying in the art as well as in everyday life, it is the Examiner's position that the use of heated air during particle deposition would have been an obvious modification with the benefit of combining the particle deposition and binder heat activation steps, rather than having two successive steps.

Since Kaiser et al and Hansen deal with making identical products for the same applications, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Kaiser et al by incorporating a binder as taught by Hansen to provide the benefit of adhering and maintaining the absorbent particles to the web fibers in the portions of pad in which they were initially deposited to maintain desired regions of absorbency.

15. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al in view of Hansen US 6071549 and further in view of Bachar US 6066775.

Kaiser et al and Hansen are cited for the same reasons previously discussed, which are incorporated herein. Use of fiber rolls is not taught.

Bachar teaches forming absorbent non-woven cores containing absorbent particles for articles such as diapers, sanitary napkins, etc in which it is taught on column 6, 49-61 that a pre-formed roll 10 of air-laid non-woven sheet is provided of any thickness, which may be spooled off the roll 10 for feeding onto an assembly line which includes introduction of super absorbents (SAP), folding, finishing, cutting, etc. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Kaiser et al in view of Hansen by incorporating pre-formed rolls of non-woven sheet to which absorbent particles are added as taught by Bachar to permit cost-effective formation of absorbent articles in a continuous assembly line.

16. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al in view of Hansen US 6071549 and further in view of Koczar US 5669798.

Kaiser et al and Hansen are cited for the same reasons previously discussed, which are incorporated herein. Use of an aqueous acrylate binder is not taught.

Koczar teaches forming composite absorbent non-woven structures for diapers, incontinence pads, and other hygienic articles, in which a binder is incorporated in the non-woven fiber structure for bonding purposes. It is taught on column 5, 30-39 to use heat-activatable, aqueous-based adhesives which are well-known in the art, specifically citing acrylic type binders. Such binders would be inclusive of an acrylate binder/ adhesive because the latter necessarily comprises acrylic groups, hence the Examiner takes acrylic and acrylate binders/ adhesives to be

synonymous. It is further pointed out both are aqueous-based and used for similar binding purposes. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Kaiser et al in view of Hansen by substituting aqueous acrylic binders as taught by Koczab because of a reasonable expectation of their success as a binder since they are known to act as binders/ adhesives for similar non-woven absorbent articles.

17. Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaiser et al in view of Hansen US 6071549 and further in view of Koczab US 5669798 and further in view of Liloia et al US 3663348.

Kaiser et al, Koczab, and Hansen are cited for the same reasons previously discussed, which are incorporated herein. Specific dispensing means are not taught.

Liloia et al teaches forming fibrous webs in which a binder is applied onto a top surface of the web, and then suction on the opposing surface is used to remove excess binder and provide uniform distribution of binder across the thickness of the web, followed by a heating/ drying step (col. 3, 9-58). The reference also teaches that in "any conventional methods of processing fabrics, excess binder liquids are squeezed out....with compression rollers" (col. 3, 74 - col. 4, 3). While an "atomizer" per se is not taught, since Hansen teaches to apply binder solutions by spraying, immersion, etc, it is the Examiner's position that the use of any such conventional means to wet the web sufficiently to impregnate the thickness of the web would have been within the purview of the skilled artisan, including sprayers, immersion coaters, etc per claims 10-11. It would have been obvious to one of ordinary skill in the art at the time the invention was made to

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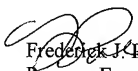
modify the method of Kaiser et al in view of Hansen and Koczab by incorporating the impregnating means as taught by Liloia et al because the impregnation means are known to remove excess binder and provide uniform distribution of binder across the thickness of the web.

It would also have been apparent from the references that the steps of applying adhesive, absorbent particles, and heating/ drying are performed sequentially/ in a continuous manufacturing line which would have provided the benefits of being cost and space effective for the manufacture of the absorbent articles.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 703/308-3474. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703/308-2333. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703/308-0661.


Frederick J. Parker
Primary Examiner
Art Unit 1762

fjp